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| 10/690,328   | 10/21/2003  | Gilad Israel Elbaz          | 16113-0328001       | 2189             |
| 26192 7590 09/29/2008<br>FISH & RICHARDSON P.C.<br>PO BOX 1022<br>MINNEAPOLIS, MN 55440-1022 |             |                             |                     |                  |
| EXAMINER<br>COUGHLAN, PETER D  |             |                             |                     |                  |
| ART UNIT<br>2129   |             | PAPER NUMBER                |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

### Office Action Summary

**Application No.**

10/690,328

**Applicant(s)**

ELBAZ ET AL.

**Examiner**

PETER COUGHLAN

**Art Unit**

2129

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 June 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-31 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 17 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/CD/CC)  
Paper No(s)/Mail Date 3/20/2008  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### Detailed Action

1. This office action is in response to an AMENDMENT entered 6/17/2008 for the patent application 10/690328 filed on October 21, 2003
2. All previous Office Actions are fully incorporated into this Final Office Action by reference.
3. Examiner's Comment: Although, the terms 'carrier wave' or 'carrier signal' is not specifically mentioned within the specification, the Examiner will exclude these interpretations wherein the context of 'media' is disclosed.

### ***Status of Claims***

4. Claims 1-31 are pending.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a

whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCandless in view of Nosohara and in view of Knobblock, ('Web advertising', referred to as **McCandless**; U. S. Patent 5956740, referred to as **Nosohara**; 'Searching the World Wide Web', referred to as **Knobblock**)

Claim 1

McCandless teaches receiving a knowledge item (**McCandless**, p9, C1 15-29; 'Knowledge item' of applicant is equivalent to 'keywords' of McCandless.) identifying first information to be used in selecting a meaning for the knowledge item, the first information identified as having a predefined relationship with the knowledge item. (**McCandless**, p9, C2:39 through C3:5; 'Identifying information' of applicant is disclosed in part by the ability to generate 'personalized advertising' which has the characteristic of 'dynamic information' of McCandless.)

McCandless does not teach determining at least one meaning of the first information using a computer readable data collection that includes terms and at least one meaning associated with each of the terms; determining a plurality of meanings of the knowledge item by matching the knowledge item to at least one of the terms in the computer readable data collection; selecting at least one of the plurality of meanings of the knowledge item using the at least one meaning of the first information.

Nosohara teaches determining at least one meaning of the first information using a computer readable data collection that includes terms and at least one meaning associated with each of the terms (**Nosohara**, C1:21-30; The applicant states that identified information has at least one meaning. It is inherent to languages that words have at least one meaning. If the 'identified information' is matched then its meaning is known.); determining a plurality of meanings of the knowledge item by matching the knowledge item to at least one of the terms in the computer readable data collection (**Nosohara**, C1:21-30; 'Determining a plurality of meanings' of applicant is illustrated by the use of a 'synonym dictionary' of Nosohara.); selecting at least one of the plurality of meanings of the knowledge item using the at least one meaning of the first information. (**Nosohara**, C3:65 through C4:17; 'Selecting at least one of the plurality of meanings' of applicant is disclosed by 'search and output the words having identical or equivalent meaning' of Nosohara.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless by matching keywords with others and synonyms as taught by Nosohara to determining at least one meaning of the first information using a computer readable data collection that includes terms and at least one meaning associated with each of the terms; determining a plurality of meanings of the knowledge item by matching the knowledge item to at least one of the terms in the computer readable data collection; selecting at least one of the plurality of meanings of the knowledge item using the at least one meaning of the first information.

For the purpose of allowing the searching to cover a wider domain.

McCandless and Nosohara do not teach recording the selected at least one of the plurality of meanings as an interpretation of the knowledge item.

Knobblock teaches recording the selected at least one of the plurality of meanings of the knowledge item as an interpretation of the knowledge item. (**Knobblock**, p10, C1:29 through C2:4; 'Recording the selected' of applicant is equivalent to 'stockpiling' of Knobblock.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless and Nosohara by saving the meanings of a keyword as taught by Knobblock to recording the selected at least one of the plurality of meanings of the knowledge item as an interpretation of the knowledge item.

For the purpose of avoiding duplicate determinations of a knowledge item.

#### Claims 2, 15

McCandless teaches wherein the knowledge item is a keyword received as input to a search engine. (**McCandless**, p9, C1:15-29; 'Keyword' of applicant is equivalent to 'keyword' of McCandless.)

#### Claim 3

McCandless teaches wherein the identified information comprises articles. (**McCandless**, p9, C1:15-29; 'Articles' of applicant is equivalent to 'advertisement' of McCandless.)

Claim 16

McCandless teaches wherein the first information comprises articles.  
(**McCandless**, p9, C1:15-29; 'Articles' of applicant is equivalent to 'advertisement' of McCandless.)

Claims 4, 17

McCandless teaches wherein the articles comprise an advertisement from an advertiser who has bid on the knowledge item. (**McCandless**, p9, C1:15-29; 'Advertiser who has bid' of applicant is equivalent to 'advertisers that bids the highest price' of McCandless.)

Claims 5, 18

McCandless teaches wherein the articles further comprise a web page associated with the advertisement. (**McCandless**, p8, C3:38 through p9, C1:14; 'Web page' of applicant is equivalent to 'page' of McCandless. 'Advertisement' of applicant is equivalent to 'banner' of McCandless.)

Claim 6

McCandless teaches wherein the first information further comprises related data. (**McCandless**, p9, C3:6-23; 'Data' of applicant is disclosed by the 'time you saw the ad, which ad was shown, and whether you clicked on it' of **McCandless**.)

#### Claim 19

McCandless teaches wherein the first information further comprises data. (**McCandless**, p9, C3:6-23; 'Data' of applicant is disclosed by the 'time you saw the ad, which ad was shown, and whether you clicked on it' of **McCandless**.)

#### Claims 7, 20

McCandless teaches wherein the related data comprises cost per click data associated with the advertisement. (**McCandless**, -p9, C1:15-29; 'Cost per click' of applicant is equivalent to 'cost per thousand (CPM)' of **McCandless**.)

#### Claim 14

McCandless teaches program code for receiving a knowledge item (**McCandless**, p9, C1 :15-29; 'Knowledge item' of applicant is equivalent to 'keywords' of **McCandless**.); program code for identifying first information to be used in selecting a meaning for the knowledge item, the first information identified as having a predefined relationship with the knowledge item. (**McCandless**, p9, C2:39 through C3:5;



'Identifying information' of applicant is disclosed in part by the ability to generate 'personalized advertising' which has the characteristic of 'dynamic information' of McCandless.)

McCandless does not teach program code for determining at least one meaning of the first information using a computer readable data collection that includes terms and at least one meaning associated with each of the terms; program code for determining a plurality of meanings of the knowledge item by matching the knowledge item to at least one of the terms in the computer readable data collection; program code for selecting at least one of the plurality of meanings of the knowledge item using the at least one meaning of the first information.

Nosohara teaches program code for determining at least one meaning of the first information using a computer readable data collection that includes terms and at least one meaning associated with each of the terms (**Nosohara**, C1:21-30; The applicant states that identified information has at least one meaning. It is inherent to languages that words have at least one meaning. If the 'identified information' is matched then its meaning is known.); program code for determining a plurality of meanings of the knowledge item by matching the knowledge item to at least one of the terms in the computer readable data collection (**Nosohara**, C1:21-30; 'Determining a plurality of meanings' of applicant is illustrated by the use of a 'synonym dictionary' of Nosohara.); program code for selecting at least one of the plurality of meanings of the knowledge item using the at least one meaning of the first information. (**Nosohara**, C3:65 through C4:17; 'Selecting at least one of the plurality of meanings' of applicant is disclosed by

'search and output the words having identical or equivalent meaning' of Nosohara.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless by matching keywords and their synonyms as taught by Nosohara to have program code for determining at least one meaning of the first information using a computer readable data collection that includes terms and at least one meaning associated with each of the terms; program code for determining a plurality of meanings of the knowledge item by matching the knowledge item to at least one of the terms in the computer readable data collection; program code for selecting at least one of the plurality of meanings of the knowledge item using the at least one meaning of the first information.

For the purpose of increasing the domain of the search terms for improved results.

McCandless and Nosohara do not teach program code for recording the selected at least one of the plurality of meanings as an interpretation of the knowledge item.

Knobblock teaches program code for recording the selected at least one of the plurality of meanings as an interpretation of the knowledge item. (**Knobblock**, p10, C1:29 through C2:4; 'Recording the selected' of applicant is equivalent to 'stockpiling' of Knobblock.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless and Nosohara by saving the meanings as taught by Knobblock to have program code for recording the selected at least one of the plurality of meanings as an interpretation of the knowledge item.

For the purpose of avoiding duplicate determinations of a knowledge item.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-13 and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of McCandless, Nosohara and Knobbloch in view of Lang. (U. S. Patent 5867799, referred to as **Lang**)

**Claim 8**

McCandless, Nosohara and Knobbloch do not teach wherein determining the plurality of meanings of the knowledge item further comprises processing the knowledge item using the computer readable data collection to determine any known associated concepts.

Lang teaches wherein determining the plurality of meanings of the knowledge item further comprises processing the knowledge item using the computer readable data collection to determine any known associated concepts. (**Lang**, C11:8-17; To 'determine any known associated concepts' of applicant is achieved by 'probabilistic techniques ... the probability ... satisfies the user's information need' of Lang.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of McCandless, Nosohara and Knobbloch by wherein determining the plurality of meanings of the knowledge item further comprises processing the knowledge item using the computer readable data collection to determine any known associated concepts.

For the purpose of using the concepts to broaden the advertising horizon.

#### Claim 21

McCandless, Nosohara and Knobbloch do not teach wherein determining the plurality of meanings of the knowledge item further comprises processing the knowledge item to determine any known associated concepts.

Lang teaches wherein determining the plurality of meanings of the knowledge item further comprises processing the knowledge item to determine any known associated concepts. (**Lang**, C11:8-17; To 'determine any known associated concepts' of applicant is achieved by 'probabilistic techniques ... the probability ... satisfies the user's information need' of Lang.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined

teachings of McCandless, Nosohara and Knobblock by making the connection from meanings to concepts as taught by Lang to determining the plurality of meanings of the knowledge item further comprises processing the knowledge item to determine any known associated concepts.

For the purpose of using the concepts to broaden the advertising horizon.

Claims 9, 22

McCandless, Nosohara and Knobblock do not teach wherein the plurality of meanings correspond to a plurality of associated concepts and wherein selecting the at least one of the plurality of meanings comprises selecting at least one of the associated concepts.

Lang teaches wherein the plurality of meanings correspond to a plurality of associated concepts and wherein selecting the at least one of the plurality of meanings comprises selecting at least one of the associated concepts. (Lang, C11:8-17, C3:33-43; 'Plurality of meanings correspond to a plurality of associated concepts' of Lang is equivalent to information filtering in which entities of information relevant to the user or having 'meanings' of applicant.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of McCandless, Nosohara and Knobblock by selecting a meaning and corresponding concept as taught by Lang to have wherein the plurality of meanings correspond to a plurality of associated concepts and wherein selecting the at least one of the plurality of meanings comprises selecting at least one of the associated concepts.

For the purpose of establishing a starting point of advertising marketing

Claims 10, 23

McCandless, Nosohara and Knobbloch do not teach establishing a probability for each of the plurality of meanings that the knowledge item should be resolved to the one of the plurality of meanings; determining a strength of relationship between each of the plurality of meanings and the at least one meaning of the identified information; and adjusting the probability for each of the plurality of meanings based on the strengths, wherein the adjusted probability is used in selecting the at least one of the plurality of meanings.

Lang teaches establishing a probability for each of the plurality of meanings that the knowledge item should be resolved to the one of the plurality of meanings (Lang, C11:18-65; 'Establishing a probability' of applicant is disclosed by the formula  $p(\text{HID})$  of Lang.); determining a strength of relationship between (1) each of the plurality of meanings and (2) the at least one meaning of the first information (Lang, C11:18-65; 'Determining the strength' of applicant is disclosed by the formula  $-\log(p(\text{DIH})) - \log(p(\text{H}))$  of Lang.); and adjusting the probability for each of the plurality of meanings based on the strengths, wherein the adjusted probability is used in selecting the at least one of the plurality of meanings. (Lang, C11:18-65; 'Adjusting the probability' of applicant is illustrated by the fact the formula  $-\log(P(\text{DIH})) - \log(p(\text{H}))$  can be maximized. This maximization of the formula of Lang is equivalent to 'adjusting the probability' of applicant.) It would have been obvious to a person having ordinary skill in

the art at the time of applicant's invention to modify the combined teachings of McCandless, Nosohara and Knobbblock by using a relationship value between meanings for a possible solution as taught by Lang to establish a probability for each of the plurality of meanings that the knowledge item should be resolved to the one of the plurality of meanings; determining a strength of relationship between each of the plurality of meanings and the at least one meaning of the identified information; and adjusting the probability for each of the plurality of meanings based on the strengths, wherein the adjusted probability is used in selecting the at least one of the plurality of meanings.

For the purpose of using an associated meaning based on a probability for finding a possible solution.

Claims 11, 24

McCandless, Nosohara and Knobbblock do not teach wherein the plurality of meanings comprise a weighted vector of concepts.

Lang teaches wherein the plurality of meanings comprise a weighted vector of concepts. (Lang, C20:35-50; 'Weighted vector of concepts' of applicant is equivalent to 'the vector  $M_s$ , that are related to any concept  $C$ , may be looked up' of Lang.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of McCandless, Nosohara and Knobbblock by using the industrial standard of weighted vectors as taught by Lang to have wherein the plurality of meanings comprise a weighted vector of concepts.

For the purpose of using established methods and algorithms which use weighted vectors for established reliable results.

Claims 12, 25

McCandless, Nosohara and Knobblock do not teach wherein the plurality of meanings comprise related clusters of words.

Lang teaches wherein the plurality of meanings comprise related clusters of words. (**Lang**, C20:35-50; A 'related cluster of words' of applicant can be seen as a vector 'Weighted vector of concepts' of applicant is equivalent to 'the vector Ms, that are related to any concept C, may be looked up' of Lang.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of McCandless, Nosohara and Knobblock by using clustering techniques as taught by Lang to have wherein the plurality of meanings comprise related clusters of words.

For the purpose of using distance between meanings of words to establish clusters of words based on a similar meaning.

Claim 13

McCandless, Nosohara and Knobblock do not teach establishing a probability for each of the plurality of meanings that the knowledge item should be resolved in part to the one of the plurality of meanings; and establishing a probability for the meaning of



the identified information that the knowledge item should be resolved in part to the meaning of the identified information.

Lang teaches establishing a probability for each of the plurality of meanings that the knowledge item be resolved in part to the one of the plurality of meanings (**Lang**, C12:11-17; 'Establishing a probability for each of the plurality of meanings' of applicant is. equivalent to 'each statistic can be computed for each concept' of Lang.); and establishing a probability for the meaning of the first information that the knowledge item should be resolved in part to the meaning of the first information. (**Lang**, C12:26-45; 'Establishing a probability for the meaning of the identified information' of applicant is disclosed by the formula ' $p(t_i, d = \{ \} 1 \text{ Id}[\text{Ck}])$ ' of Lang.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of McCandless, Nosohara and Knobblock by using a probability result to find a possible solution as taught by Lang to establish a probability for each of the plurality of meanings that the knowledge item should be resolved in part to the one of the plurality of meanings; and establishing a probability for the meaning of the identified information that the knowledge item should be resolved in part to the meaning of the identified information.

For the purpose of a finding a result to the problem.

#### Claim 26

McCandless, Nosohara and Knobblock do not teach program code for establishing a probability for each of the plurality of meanings that the knowledge item

should be resolved in part to the one of the plurality of meanings; and establishing a probability for the meaning of the identified information that the knowledge item should be resolved in part to the meaning of the identified information.

Lang teaches establishing a probability for each of the plurality of meanings that the knowledge item be resolved in part to the one of the plurality of meanings (**Lang**, C12:11-17; 'Establishing a probability for each of the plurality of meanings' of applicant is. equivalent to 'each statistic can be computed for each concept' of Lang.); and program code for establishing a probability for the meaning of the first information that the knowledge item should be resolved in part to the meaning of the first information. (**Lang**, C12:26-45; 'Establishing a probability for the meaning of the identified information' of applicant is disclosed by the formula ' $p(t, i, d = \{1 \text{ Id}[Ck])$ ' of Lang.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of McCandless, Nosohara and Knobblock by using a probability result to find a possible solution as taught by Lang to establish a probability for each of the plurality of meanings that the knowledge item should be resolved in part to the one of the plurality of meanings; and establishing a probability for the meaning of the identified information that the knowledge item should be resolved in part to the meaning of the identified information.

For the purpose of a finding a result to the problem.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of McCandless, Nosohara and Knoblock in view of Oreizy. ('The web as enabling technology for software development and distribution', referred to as **Oreizy**)

**Claim 27**

McCandless teaches receiving a keyword (**McCandless**, p9, C1:15-29; 'Keyword' of applicant is equivalent to 'keywords' of **McCandless**.); identifying first information to be used in selecting a meaning for the keyword, the information identified as having a predefined relationship with the keyword (**McCandless**, p9, C2:39 through C3:5; 'Identifying information' from a 'keyword' of applicant is disclosed in part by the

ability in part to generate 'personalized advertising' which has the characteristic of 'dynamic information' of McCandless.);

McCandless does not teach determining at least one meaning of the first information using a computer readable data collection that includes terms and at least one meaning associated with each of the terms; selecting at least one of a plurality of meanings; of the keyword using the at least one meaning of the first information. Nosohara teaches determining at least one meaning of the first information using a computer readable data collection that includes terms and at least one meaning associated with each of the terms (**Nosohara**, C1:21-30; The applicant states that identified information has at least one meaning. It is inherent to languages that words have at least one meaning. If the 'identified information' is matched then its meaning is known.); selecting at least one of a plurality of meanings (**Nosohara**, C1:21-30; 'Determining a plurality of meanings' of applicant is illustrated by the use of a 'synonym dictionary' of Nosohara.); of the keyword using the at least one meaning of the first information. (**Nosohara**, C3:65 through C4:17; 'Using at least one of the plurality of meanings' of applicant is disclosed by 'search and output the words having identical or equivalent meaning' of Nosohara.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless by matching keywords and using their synonyms as taught by Nosohara to determining at least one meaning of the first information using a computer readable data collection that includes terms and at least one meaning associated with each of the

terms; selecting at least one of a plurality of meanings; of the keyword using the at least one meaning of the first information.

For the purpose of increasing the range of the domain for improved results.

McCandless, Nosohara and Knobbblock do not teach matching the keyword to content associated with a web page.

Oreizy teaches matching the keyword to content associated with a web page. (Oreizy, p85, C2:18-29; Matching a keyword with a web page is disclosed by 'keyword based web indexing' of Oreizy.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of McCandless, Nosohara and Knobbblock by using simple keyword matching with a web page as taught by Oreizy to have matching the keyword to content associated with a web page.

For the purpose of finding an exact match from the keyword for increased accuracy.

McCandless and Nosohara does not teach matching the keyword to an advertisement based at least in part on the selected at least one meaning.

Knobbblock teaches matching the keyword to an advertisement based at least in part on the selected at least one meaning. (Knobbblock, pl0, C3:43 through pl 1, Cl 1:11; 'Matching a keyword to an advertisement' of applicant is disclosed by 'checks the user's query terms against a list of keywords' of Knobbblock.) It would have been obvious

to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless and Nosohara by using keyword matching to an advertisement as taught by Knobblock to have matching the keyword to an advertisement based at least in part on the selected at least one meaning.

For the purpose of obtaining a better output from the search

McCandless teaches selecting the advertisement to associate with the content (**McCandless**, p8, C3:38 through p9, C1:14; 'Selecting the advertisement' of applicant is equivalent to 'banner ad is selected' of McCandless.); and outputting the selected advertisement. (**McCandless**, p8, C3:38 through p9, C1:14; 'outputting the selecting the advertisement' of applicant is equivalent to 'banner ad is selected and presented' of McCandless.)

#### Claim 28

McCandless and Nosohara does not teach wherein the identified information comprises text of advertisements associated with advertisers who have bid on the keyword.

Knobblock teaches wherein the identified information comprises text of advertisements associated with advertisers who have bid on the keyword. (**Knobblock**, p10, C3:43 through pl 1, Cl 1:11; 'Matching a keyword to an advertisement' of applicant is disclosed by 'checks the user's query terms against a list of keywords that have been sold at a premium to the advertisers' of Knobblock.) It would have been obvious to a

person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless and Nosohara by having advertisers bid on keywords as taught by Knobblock to have wherein the identified information comprises text of advertisements associated with advertisers who have bid on the keyword.

For the purpose of generating a profit for those which provide the search results

#### Claim 29

McCandless and Nosohara does not teach wherein the first information comprises destination web pages associated with the advertisements.

Knobblock teaches wherein the identified information comprises destination web pages associated with the advertisements. (**Knobblock**, pl0, C3:43 through pl 1, C11:11; 'Identified information comprises destination web pages associated with the advertisements' of applicant is illustrated by 'serving web pages' through 'targeted advertising' of Knobblock.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless by outputting web addresses as taught by McCandless and Nosohara to have wherein the first information comprises destination web pages associated with the advertisements.

For the purpose of utilizing the ease of use to links of advertising pages such that a user can view an advertisement by a single click of the mouse.

#### Claim 30

McCandless and Nosohara does not teach wherein the first information comprises other keywords bid on by advertisers.

Knoblock teaches wherein the identified information comprises other keywords bid on by advertisers. (**Knobblock**, p10, C3:43 through pl 1, C11:11;'Keywords' of applicant is equivalent to 'keywords' of Knobblock. 'Keywords bid on by advertisers' of applicant is illustrated by ;keywords that have been sold at a premium to the advertisers' of Knobblock.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of McCandless and Nosohara by offering other keywords for additional costs as taught by Knoblock to have wherein the first information comprises other keywords bid on by advertisers.

For the purpose of generating additional profits for the search provider.

#### Claim 31

McCandless teaches wherein the first information comprises search results associated with the keyword. (**McCandless**, p9, C1:15-29, p9, C2:39 through C3:5; 'Keyword' of applicant is equivalent to 'keywords' of McCandless. 'Identifying information' of applicant is disclosed in part by the ability to generate 'personalized advertising' which has the characteristic of 'dynamic information' of McCandless.)



***Response to Arguments***

6. Applicant's arguments filed on 6/17/2008 for claims 1-31 have been fully considered but are not persuasive.

7. In reference to the Applicant's argument:

**REMARKS**

In the Office Action mailed January 17, 2008, the Examiner rejected pending claims 1-31. In this Amendment in Reply, Applicants amend the specification as well as claims 1, 6, 12, and 27. Claims 1-31 remain pending. Applicants respectfully request the Examiner's reconsideration in view of the amendments and the following remarks.

**Amendments to the Specification and the Drawings**

Although Applicants believe the specification and drawings as originally filed enabled the claims prior to amendment, Applicants amend the specification and drawings as indicated above to advance prosecution. Applicants have amended the specification and drawings to include disclosure from U.S. Provisional Application 60/155,667 filed September 22, 1999, which the original specification incorporates by reference in paragraph [0001]. Specifically, Applicants have copied Figure 3 and its description (page 26, line 23 through page 28, line 9). In addition, Applicants have copied the description from page 18, line 18 through page 19, line 22. No new matter is added.

**Examiner's response:**

The Examiner acknowledges the amended specification.

8. In reference to the Applicant's argument:

Claim Amendments - Claims 1, 6, 12, and 27

Although Applicants believe the claims were patentable prior to amendment, Applicants amend the claims as indicated above to advance prosecution. Applicants reserve the right to pursue claims of the same or similar scope to the claims prior to amendment in a continuation or divisional application.

Applicants have amended the independent claims to recite use of a computer-readable data collection. This subject matter is supported by the present disclosure, for example in the description of an "Ontology" on page 5 of U.S. Provisional Application 60/491,422, and in the description of the "meaning-based lexicon" on page 6 et seq. of U.S. Provisional Application 60/491,422, both of which applications were incorporated into the present application by reference. Applicants have amended claims 6 and 12 to correct typographical errors.  
No new matter is added.

Examiner's response:

The Examiner acknowledges the amended claims.

9. In reference to the Applicant's argument:

Claim Rejections - 35 U.S.C. § 112: Claims 10, 12, 23, and 26

The Office Action rejected claims 10, 12, 23, and 26 under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the enablement requirement. Specifically, the Office Action alleges the specification does not enable "how this determination of 'strength' is generated," (Office Action page 3) with regard to claims 10 and 23. In addition, the Office Action alleges the specification does not enable "how this [probability] is generated," (Office Action page 5) with regard to claims 13 and 26.

Without conceding that the rejection has merit, Applicants have amended the specification and drawings to explicitly include content from the provisional application as an illustration of how the features at issue are enabled by the present disclosure.

The specification now explicitly describes "determining a strength of relationship between (1) each of the plurality of meanings and (2) the at least one meaning of the identified information," as recited in Applicants claims 10 and 23. Specifically, new FIG.

4 and its corresponding description teach "how this determination of 'strength' is generated." (Office Action page 3)

The specification as amended teaches "establishing a probability, for each of the plurality of meanings, that the knowledge item be resolved in part to the one of the plurality of meanings," and "establishing a probability, for the meaning of the identified information, that the knowledge item be resolved in part to the meaning of the identified information," as recited in Applicants claims 13 and 26. Specifically, the amendment to the specification inserted after original paragraph [0040] teaches "how this [probability] is generated." (Office Action page 5)

Applicants submit that claims 10, 12, 23, and 26 are enabled under 35 U.S.C. § 112 by the specification, as amended. Applicant respectfully requests that the Examiner withdraw the rejections under 35 U.S.C. § 112 of claims 10, 12, 23, and 26.

Examiner's response:

Regarding the amended specification with the provided detail, the Examiner withdraws the rejection under 35 U.S.C. § 112.

10. In reference to the Applicant's argument:

Claim Rejections - 35 U.S.C. § 103(a): Claims 1-31

The Office Action rejected claims 1-7 and 14-20 under 35 U.S.C. § 103(a) as allegedly unpatentable over an article entitled "Web Advertising" ("McCandless") in view of an article entitled "Searching the World Wide Web" ("Knobblock"). The Office Action rejected claims 8- 13 and 21-26 under 35 U.S.C. § 103(a) as being unpatentable over the McCandless reference and the Knobblock reference in view of U.S. Patent No. 5,867,799 ("Lang"). The Office Action rejected claims 27-31 under 35 U.S.C. § 103(a) as being unpatentable over the McCandless reference and the Knobblock reference in view of an article entitled "The web as enabling technology for software development and distribution" ("Oreizy"). These rejections are traversed. Claims 1, 14, and 27 are independent.

Applicants' amended claims are patentable over the prior art of record because the prior

Art Unit: 2129

art of record does not teach or suggest many elements of Applicants' claims. Specifically, the prior art of record does not disclose "determining at least one meaning of the identified information," "determining a plurality of meanings of the knowledge item," and "selecting at least one of the plurality of meanings using the at least one meaning of the identified information," as recited in Applicants' amended claims 1 and 14, and as similarly recited in Applicants' amended claim 27. Nor does any of the references disclose using a computer- readable data collection as recited in the present claims for determining a meaning.

The McCandless reference discloses matching "pertinent advertisements" to information contained in a "self-maintained, online personal profile." (Page 9, column 2, line 39 through column 3, line 5) The Knobbblock reference discloses "creat[ing] a list of links to Web documents," (Page 8, column 1, lines 9-24) and "list[ing] documents most closely related to the user's query first." (Page 8, column 3, lines 27-38) The Lang reference discloses "entities of information relevant to the user..., are extracted from the data stream using content-based and collaborative filtering." (Column 3, lines 33-43) The Oreizy reference discloses "[k]eyword- based Web indexing." (Page 85, column 2, lines 18-29) Nowhere does the prior art of record teach or suggest any kind of "determining" a "meaning" or "selecting" a "meaning," as recited in Applicants' amended claims 1 and 14, and as similarly recited in Applicants' amended claim 27.

Therefore, Applicants' independent claims 1, 14, and 27, as amended, define patentable subject matter over the prior art of record. Applicants respectfully request that the Examiner remove the rejections under 35 U.S.C. § 103(a) of independent claims 1, 14, and 27. Accordingly, Applicants request that the Examiner remove the rejections of claims 2-13, 15-26, and 28-31 each of which depends either directly or indirectly from claims 1, 14, and 27.

After the Office Action set forth the rejections that Applicants have addressed above, the Examiner also restated Applicants' responses to the previous Office Action and commented specifically on some of them. Generally, the previous Office Action did not rely on the Knobbblock reference. However, on a few occasions the Examiner in these passages nevertheless stated that "the Office Action stands", referring to the previous Office Action. Applicants submit that, on the contrary, it appears the Examiner has chosen not to maintain any rejection in the previous Office Action since the Knobbblock reference was added. In any event, Applicants incorporate the responses to the previous Office Action here.

Examiner's response:

The applicant states that identified information has at least one meaning. It is inherent to languages that words have at least one meaning. If the 'identified information' is matched then its meaning is known. (**Nosohara**, C1:21-30) 'Determining a plurality of meanings' of applicant is illustrated by the use of a 'synonym dictionary' of Nosohara. (**Nosohara**, C1:21-30) 'Selecting at least one of the plurality of meanings' of applicant is disclosed by 'search and output the words having identical or equivalent meaning' of Nosohara. (**Nosohara**, C3:65 through C4:17) Office Action stands.

### ***Examination Considerations***

11. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has the full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

12. Examiner's Notes are provided to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and sprit of compact prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but link to prior art that one of ordinary skill in the art would find inherently appropriate.

13. Examiner's Opinion: Paragraphs 11 and 12 apply. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

### ***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Claims 1-31 are rejected.

***Correspondence Information***

16. Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner Peter Coughlan, whose telephone number is (571) 272-5990. The Examiner can be reached on Monday through Friday from 7:15 a.m. to 3:45 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor David Vincent can be reached at (571) 272-3080. Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

Hand delivered to:

Receptionist,

Customer Service Window,

Randolph Building,

401 Dulany Street,

Alexandria, Virginia 22313,

(located on the first floor of the south side of the Randolph Building);

or faxed to:

(571) 272-3150 (for formal communications intended for entry.)

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

/P. C./

Examiner, Art Unit 2129

Peter Coughlan

9/5/2008

/David R Vincent/

Supervisory Patent Examiner, Art Unit 2129